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Daylight and Sunlight Report for the Proposed Development at 35 Great James Street, London WC1N 3HB

Prepared for	**Marek Wojciechowski Architects**
Prepared by	**Stephen Kent**
Date	**17 November 2015**
Reference	**45627/IM/SJK**

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Prepared for
Marek Wojciechowski Architects

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1.1 Scope

1.1.1 We have been instructed by Marek Wojciechowski Architects to determine whether the proposed residential conversion at 35 Great James Street, London WC1N 3HB will receive sufficient daylight and sunlight.

1.2 Assessment Criteria

1.2.1 To ensure that this assessment can be appropriately evaluated against Camden's planning policy, daylight and sunlight calculations have been undertaken in accordance with the Building Research Establishment Report `Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2nd Edition, 2011(the "BRE guide") and also British Standard 8206 – 2: 2008 – `Lighting for Buildings – Part 2: Code of Practice for Daylighting', to which the BRE guide refers. The standards and tests applied within this assessment are briefly described in Appendix A.

1.3 Summary of Analysis of Daylight, Sunlight and Overshadowing for the New Development

Internal Daylight

1.3.1 A number of factors need to be considered here, such as the existing historic structure with retained facades which has led to fixed orientation and window sizes. Most of the affected windows serve dressing rooms with a lower requirement for daylight than principal rooms. The family room, drawing room and kitchen rooms have good results which suggests that the light conditions will be satisfactory.

Internal Sunlight

1.3.2 The existing orientation of the building means that not all rooms can meet the BRE criteria and this should be given due consideration when reviewing the results. This is referred to in the BRE guide which contains specific guidance to balance the issue of orientation limiting sunlight availability. It states that the aim should be for all main rooms to receive a reasonable amount of sunlight and this objective is generally met here.

Overshadowing

1.3.3 The two proposed amenity areas will be very well sun-lit as they all received at least 2 hours of direct sunlight on the 21 March, of between 65.4% and 84.5% of their total areas. These are both in excess of the BRE target which suggest that 50% of each space should be lit on that date and will ensure very good sunlighting conditions for future users.

1.4 Overall

1.4.1 We consider for the reasons given above, that the proposals accord with the BRE guide's criteria and also the planning policy objectives of Camden Council.

2. Introduction

2.1 Scope

2.1.1 We have been instructed by Marek Wojciechowski Architects to determine whether the proposed residential conversion at 35 Great James Street, London WC1N 3HB will receive sufficient daylight and sunlight.

2.2 Planning Policy

2.2.1 Camden Council's Local Development Framework, Development Policy, refers to the following documents as those being used to review adequacy of daylight and sunlight. This Report is therefore based on the following publications which contain the accepted standards for assessing daylight and sunlight:

- Building Research Establishment (BRE) Report "Site Layout Planning for Daylight and Sunlight – a guide to good practice, 2nd Edition, 2011" ("the BRE guide")

2.2.2 Camden Council's Local Development Framework, Development Policy contains the following policy guidance under DP26: Managing the impact of development on occupiers and neighbours:

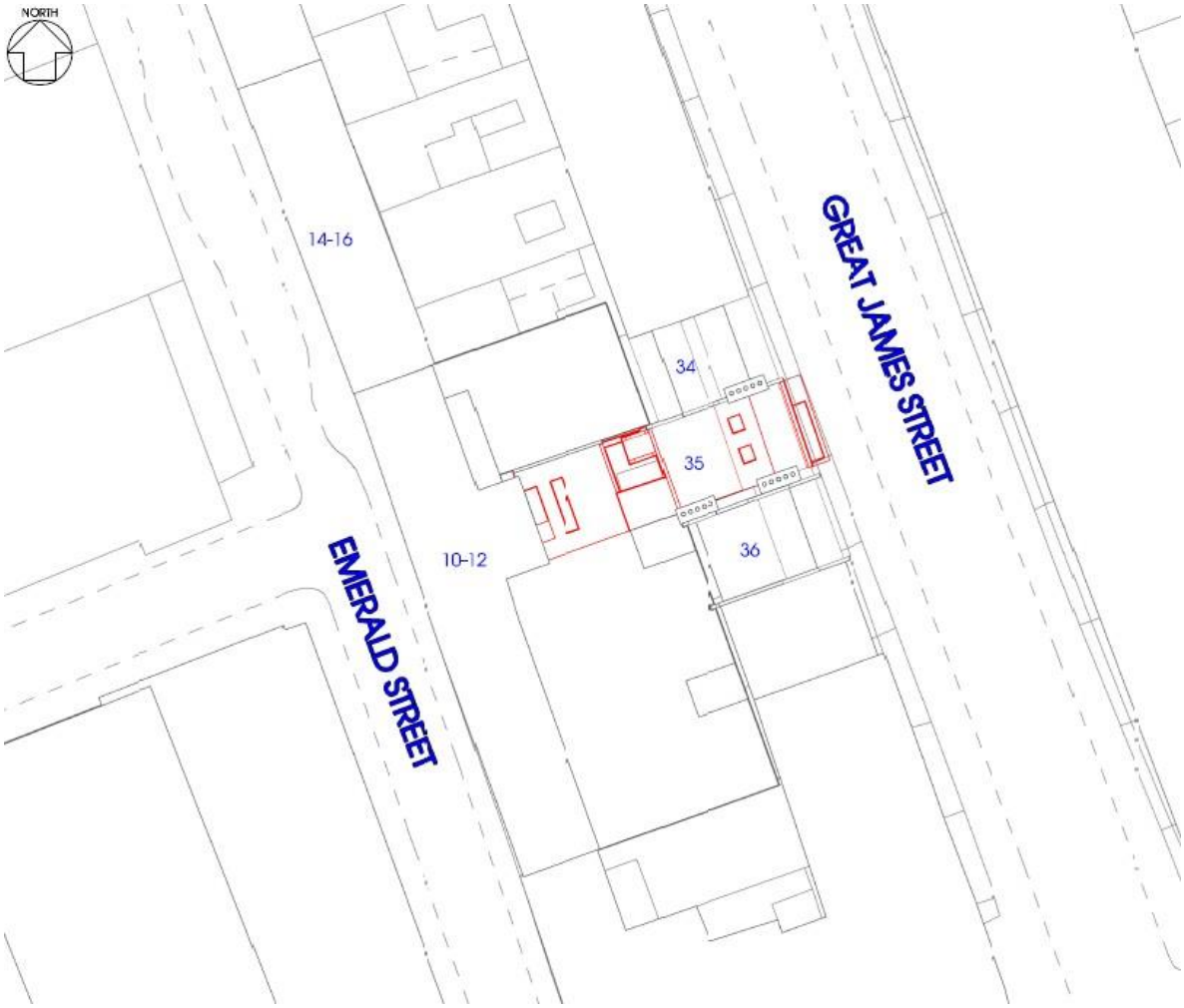
Visual privacy, overlooking, overshadowing, outlook, sunlight and daylight

26.3 A development's impact on visual privacy, overlooking, overshadowing, outlook, access to daylight and sunlight and disturbance from artificial light can be influenced by its design and layout, the distance between properties, the vertical levels of onlookers or occupiers and the angle of views. These issues will also affect the amenity of the new occupiers. We will expect that these elements are considered at the design stage of a scheme to prevent potential negative impacts of the development on occupiers and neighbours. To assess whether acceptable levels of daylight and sunlight are available to habitable spaces, the Council will take into account the standards recommended in the British Research Establishment's Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice (1991).

2.3 Assessment Criteria

2.3.1 To ensure that this assessment can be appropriately evaluated against Camden's planning policy, daylight and sunlight calculations have been undertaken in accordance with the `BRE guide' and also on BS8206–2: 2008 to which the BRE guide refers. The standards and tests applied are briefly described in Appendix A.

2.3.2 The proposed development site is shown on the Site Plan (see below)



2.4 Limitations

2.4.1 Our assessment is based on the scheme drawings provided by Marek Wojciechowski Architects as listed below:

Drawing Number/Title	Date
P_01 Proposed Ground Floor Plan.dwg	16 November 2015
P_02 Proposed Lower Ground Floor Plan.dwg	16 November 2015
P_03 Proposed First Floor Plan.dwg	16 November 2015
P_04 Proposed Second Floor Plan.dwg	16 November 2015
P_05 Proposed Third Floor Plan.dwg	16 November 2015
P_06 Proposed Roof Plan.dwg	16 November 2015
P_07 Proposed Front Elevation.dwg	16 November 2015
P_08 Proposed Front Lightwell Elevation .dwg	16 November 2015
P_09 Proposed Rear Elevation.dwg	16 November 2015
P_10 Proposed Section AA.dwg	16 November 2015
P_11 Proposed Section BB.dwg	16 November 2015
As Existing .skp (3D model)	16 November 2015

2.4.2 No site inspection has been undertaken. Where no elevation survey data has been provided to us, we have estimated approximate massing and positions for the surrounding existing properties.

2.4.3 A topographical survey has not been undertaken and all levels and elevation details are approximate, having been obtained from information provided by the architects.

3. Assessment & Results – Daylighting, Sunlighting & Overshadowing issues in the New Development

3.1 Internal Daylight

3.1.1 ADF tests have been undertaken to a sample of the principal habitable rooms within the proposed development. The full ADF test results are shown in full in Appendix D. Below is a summary of our findings:

Property Ref	Average Daylight Factor Test		
	No. of Rooms	No. of Rooms Passed	No. of Rooms Failed
35 Great James Street	11	7	4
Total	**11**	**7**	**4**

3.1.2 Of the 11 windows tested all but 4 will meet the target values as set out in the BRE guidelines.

3.1.3 Although the results indicate that with the majority of the rooms tested in the proposed development will meet the ADF minima target criteria as defined by the BRE guidance, a number failed to meet the requirements and we comment as follows:

- The building is an existing structure and therefore several variables such as window size and orientation are fixed. In these situations it is more difficult to ensure that all rooms meet the criteria.
- The building is historic with retained facades, this has restricted any increase in window size or reduction of external wall thickness which would both improve the daylight levels.
- Most of the rooms in question are bedrooms and this room use has a lower requirement for light than principal rooms. Only two living rooms are affected. In that case, and many of the effects are considered to be non-material.

3.1.4 Rooms R2/101 on the first floor, R2/102 on the second floor and R2/103 on the third floor are all proposed dressing rooms which fall marginally short of the BRE target. However, all three of these rooms are connected to the main bedrooms which all greatly exceed the BRE target for bedrooms of 1%.

3.1.5 The remaining room, R2/100 on the ground floor is a proposed dining room to the rear of the property. This room is located next to the ground floor drawing room which meets the 1.5% ADF target for main living rooms.

3.1.6 Given the above constraints and mitigating factors, and considering that the majority of the rooms tested meet the BRE criteria, we consider that the results are acceptable.

3.1.7 The Daylight Distribution (DD) test results are shown in full in Appendix D. Below is a summary of our findings:

Property Ref	Daylight Distribution Test		
	No. of Rooms	No. of Rooms Passed	No. of Rooms Failed
35 Great James Street	11	4	7
Total	**11**	**4**	**7**

3.1.8 Of the 11 rooms tested 4 will continue to meet the target values as set out in the BRE guidelines.

3.1.9 Although the results indicate that the majority of the rooms will receive adequate daylight distribution as defined by the BRE guidance, a number did not meet the requirements. We comment as follows:

- Of the 7 rooms in question, 5 are not main living rooms. The BRE guide suggests that other room uses are less important and therefore these results are not material.
- Regarding the family room and drawing room, while both rooms fail to meet the BRE targets for daylight distribution this is largely due to their location within the property. The design has been carefully considered to maximise ADF values for both rooms but given the site constraints, the BRE daylight distribution targets would be difficult to meet.

3.1.10 Given the above findings, we consider that the daylight distribution results accord with the BRE guide and are appropriate.

3.2 Internal Sunlight

3.2.1 APSH tests have been undertaken to a sample of the principal habitable rooms within the proposed development. The full APSH test results are shown in full in Appendix E. Below is a summary of our findings:

Property Ref	No. of Rooms Tested	No. of Rooms Passed APSH Test	No. of Rooms Failed APSH Test
35 Great James Street	2	1	1
Total	**2**	**1**	**1**

3.2.2 Of the 2 rooms assessed 1 will meet the BRE target values with 1 falling short. The main family room is located at lower ground floor level which, while not receiving any direct sunlight itself, it is located below the main open plan kitchen which does meet the BRE targets for sunlight.

3.2.3 The existing orientation of the building means that not all rooms can meet the BRE criteria and this should be given due consideration when reviewing the results. This is referred to in the BRE guide which contains specific guidance relating to flats to balance the issue of orientation limiting sunlight availability. It states that the aim should be that each unit has a main room which receives a reasonable amount of sunlight and this objective is generally met here.

3.2.4 It is therefore considered that the results are appropriate and broadly comply with the BRE guide's approach to sunlight availability.

3.3 Overshadowing

3.3.1 The location of the proposed amenity areas within the development are shown on the reference plan in Appendix F. The table below summarises the results.

Area Reference	Proportion receiving at least 2hrs of sun on 21 March	BRE Compliant?
R1/1000	65.4%	Yes
R1/1001	84.5%	Yes

3.3.2 Both proposed amenity areas tested will exceed the target values set out in the BRE guidelines.

Appendix A

Tests to be Applied

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Introduction

The main purpose of the guidelines in the Building Research Establishment Report "Site Layout Planning for Daylight and Sunlight – a guide to good practice 2011, 2nd Edition" ("the BRE guide") is to assist in the consideration of the relationship of new and existing buildings to ensure that each retains a potential to achieve good daylighting and sunlighting levels. That is, by following and satisfying the tests contained in the guidelines, new and existing buildings should be sufficiently spaced apart in relation to their relative heights so that both have the potential to achieve good levels of daylight and sunlight. The guidelines have been drafted primarily for use with low density suburban developments and should therefore be used flexibly when dealing with dense urban sites and extensions to existing buildings, a fact recognised by the BRE Report's author in the Introduction where Dr Paul Littlefair says:

'The Guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not been seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design…… In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings…..'

In many cases in low-rise housing, meeting the criteria for daylight and sunlight may mean that the BRE criteria for other amenity considerations such as *privacy* and *sense of enclosure* are also satisfied.

The BRE guide states that recommended minimum privacy distances (in cases where windows of habitable rooms face each other in low-rise residential property), as defined by each individual Local Authority's policies, vary widely, from 18-35m[1]. For two-storey properties a spacing within this range would almost certainly also satisfy the BRE guide's daylighting requirements as it complies with the 25^0 rule and will almost certainly satisfy the 'Three times height' test too (as discussed more fully below). However, the specific context of each development will be taken into account and Local Authorities may relax the stated minimum, for instance, in built-up areas where this would lead to an inefficient use of land. Conversely, greater distances may be required between higher buildings, in order to satisfy daylighting and sunlighting requirements. It is important to recognize also that privacy can also be achieved by other means: design, orientation and screening can all play a key role and may also contribute towards reducing the theoretical 'minimum' distance.

A sense of enclosure is also important as the perceived quality of an outdoor space may be reduced if it is too large in the context of the surrounding buildings. In urban settings the BRE guide suggests a spacing-to-height ratio of 2.5:1 would provide a comfortable environment, whilst not obstructing too much natural light: this ratio also approximates the 25^0 rule.

[1] The commonest minimum privacy distance is 21m (Householder Development Consents Review: Implementation of Recommendations – Department for Communities and Local Government – May 2007)

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Daylight

The criteria for protecting daylight to existing buildings are contained in Section 2.2 and Appendix C of the BRE guide. There are various methods of measuring and assessing daylight and the choice of test depends on the circumstances of each particular window. For example, greater protection should be afforded to windows which serve habitable dwellings and, in particular, those serving living rooms and family kitchens, with a lower requirement required for bedrooms. The BRE guide states that circulation spaces and bathrooms need not be tested as they are not considered to require good levels of daylight. In addition, for rooms with more than one window, secondary windows do not require assessment if it is established that the room is already sufficiently lit through the principal window.

The tests should also be applied to non-domestic uses such as offices and workplaces where such uses will ordinarily have a reasonable expectation of daylight and where the areas may be considered a principal workplace.

The BRE has developed a series of tests to determine whether daylighting levels within new developments and rooms within existing buildings surrounding new developments will satisfy or continue to satisfy a range of daylighting criteria

Note: Not every single window is assessed separately, only a representative sample, from which conclusions may be drawn regarding other nearby dwellings .

Daylighting Tests

'Three times height' test - If the distance of each part of the new development from the existing windows is three or more times its height above the centre of the existing window then loss of light to the existing windows need not be analysed. If the proposed development is taller or closer than this then the 25^0 test will need to be carried out.

25^0 test – a very simple test that should only be used where the proposed development is of a reasonably uniform profile and is directly opposite the existing building. Its use is most appropriate for low density well-spaced developments such as new sub-urban housing schemes and often it is not a particularly useful tool for assessing urban and in-fill sites. In brief, where the new development subtends to an angle of less than 25^0 to the centre of the lowest window of an existing neighbouring building, it is unlikely to have a substantial effect on the diffuse skylight enjoyed by the existing building. Equally, the new development itself is also likely to have the potential for good daylighting. If the angle is more than 25^0 then more detailed tests are required, as outlined below.

VSC Test - the VSC is a unit of measurement that represents the amount of available daylight from the sky, received at a particular window. It is measured on the outside face of the window. The 'unit' is expressed as a percentage as it is the ratio between the amount of sky visible at the given reference point compared to the amount of light that would be available from a totally unobstructed hemisphere of sky. To put this unit of measurement into perspective, the maximum percentage value for a window with a completely unobstructed outlook (i.e. with a totally unobstructed view through 90° in every direction) is 40%.

The target figure for VSC recommended by the BRE is 27%. A VSC of 27% is a relatively good level of daylight and the level we would expect to find for habitable rooms with windows on principal elevations. However, this level is often difficult to achieve on secondary elevations and in built-up urban environments. For comparison, a window receiving 27% VSC is approximately equivalent to a window that would have a continuous obstruction opposite it which subtends an angle of 25° (i.e. the same results as would be found utilising the 25^0 Test). Where tests show that the new development itself meets the 27% VSC target this is a good indication that the development will enjoy good daylighting and further tests can then be carried out to corroborate this (see under).

Through research the BRE have determined that in existing buildings daylight (and sunlight levels) can be reduced by approximately 20% of their original value before the loss is materially noticeable. It is for this reason that they consider that a 20% reduction is permissible in circumstances where the existing VSC value is below the 27% threshold. For existing buildings once this has been established it is then necessary to determine whether the distribution of daylight inside each room meets the required standards (see under).

Daylight Distribution (DD) Test – This test looks at the position of the "No-Sky Line" (NSL) – that is, the line that divides the points on the working plane (0.7m from floor level in offices and 0.85m in dwellings and industrial spaces) which can and cannot see the sky. The BRE guide suggests that areas beyond the NSL may look dark and gloomy compared with the rest of the room and BS8206 states that electric lighting is likely to be needed if a significant part of the working plane (normally no more than 20%) lies beyond it.

In new developments no more than 20% of a room's area should be beyond the NSL. For existing buildings the BRE guide states that if, following the construction of a new development, the NSL moves so that the area beyond the NSL increases by more than 20%, then daylighting is likely to be seriously affected.

The guide suggests that in houses, living rooms, dining rooms and kitchens should be tested: bedrooms are deemed less important, although should nevertheless be analysed. In other buildings each main room where daylight is expected should be investigated.

ADF Test –The ADF (Average Daylight Factor) test takes account of the interior dimensions and surface reflectance within the room being tested as well as the amount of sky visible from the window. For this reason it is considered a more detailed and representative measure of the adequacy of light. The minimum ADF values recommended in BS8206 Part 2 are: 2% for family kitchens (and rooms containing kitchens); 1.5% for living rooms; and 1% for bedrooms. This is a test used in assessing new developments, although, in certain circumstances, it may be used as a supplementary test in the assessment of daylighting in existing buildings, particularly where more than one window serves a room.

Room depth ratio test - This is a test for new developments looking at the relative dimensions of each room (principally its depth) and its window(s) to ensure that the rear half of a room will receive sufficient daylight so as not to appear gloomy.

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Sunlight

Sunlight is an important 'amenity' in both domestic and non-domestic settings. The way in which a building's windows are orientated and the overall position of a building on a site will have an impact on the sunlight it receives but, importantly, will also have an effect on the sunlight neighbouring buildings receive. Unlike daylight, which is non-directional and assumes that light from the sky is uniform, the availability of sunlight is dependent on direction. That is, as the United Kingdom is in the northern hemisphere, we receive virtually all of our sunlight from the south. The availability of sunlight is therefore dependent on the orientation of the window or area of ground being assessed relative to the position of due south.

In new developments the BRE guide suggests that dwellings should aim to have at least one main living room which faces the southern or western parts of the sky so as to ensure that it receives a reasonable amount of sunlight. Where groups of dwellings are planned the Guide states that site layout design should aim to maximise the number of dwellings with a main living room that meet sunlight criteria. Where a window wall faces within 90^0 of due south and no obstruction subtends to angle of more than 25^0 to the horizontal or where the window wall faces within 20^0 of due south and the reference point has a VSC of at least 27% then sunlighting will meet the required standards: failing that the Annual Probable Sunlight Hours (APSH) need to be analysed. APSH means the total number of hours in the year that the sun is expected to shine on unobstructed ground, allowing for average levels of cloud for the location in question. If the APSH tests reveal that the new development will receive at least one quarter of the available APSH, including at least 5% of APSH during the winter months (from 21 September to 21 March), then the requirements are satisfied. It should be noted that if a room has two windows on opposite walls, the APSH due to each can be added together.

The availability of sunlight is also an important factor when looking at the impact of a proposed development on the existing surrounding buildings. APSH tests will be required where one or more of the following are true:

- The 'Three times height' test is failed (see 'Daylight' above);
- The proposed development is situated within 90^0 of due south of an existing building's main window wall and he new building subtends to angle of more tha^n 25^0 to the horizontal;
- The window wall faces within 20^0 of due south and a point at the centre of the window on the outside face of the window wall (the reference point) has a VSC of less than 27%.

Where APSH testing is required it is similar to the test for the proposed development. That is to say that compliance will be demonstrated where a room receives:

- At least 25% of the APSH (including at least 5% in the winter months), or
- At least 0.8 times its former sunlight hours during either period, or
- A reduction of no more than 4% APSH over the year .

The Guide stresses that the target values it gives are purely advisory, especially in circumstances such as: the presence of balconies (which can overhang windows, obstructing light); when an existing building stands unusually close to the common boundary with the new development and; where the new development needs to match the height and proportion of existing nearby buildings. In circumstances like these a larger reduction in sunlight may be necessary.

The sunlight criteria in the BRE guide primarily apply to windows serving living rooms of an existing dwelling. This is in contrast to the daylight criteria which apply to kitchens and bedrooms as well as living rooms. Having said that, the guide goes on to say that care should be taken not to block too much sun from kitchens and bedrooms. Non-domestic buildings which are deemed to have a requirement for sunlight should also be checked.

Sunlight – Gardens and Open Spaces

As well as ensuring buildings receive a good level of sunlight to their interior spaces, it is also important to ensure that the open spaces between buildings are suitably lit. The recommendations as set out in the BRE guide are meant to ensure that spaces between buildings are not permanently in shade for a large part of the year. Trees and fences over 1.5m tall are also factored into the calculations.

The BRE guidelines state that:

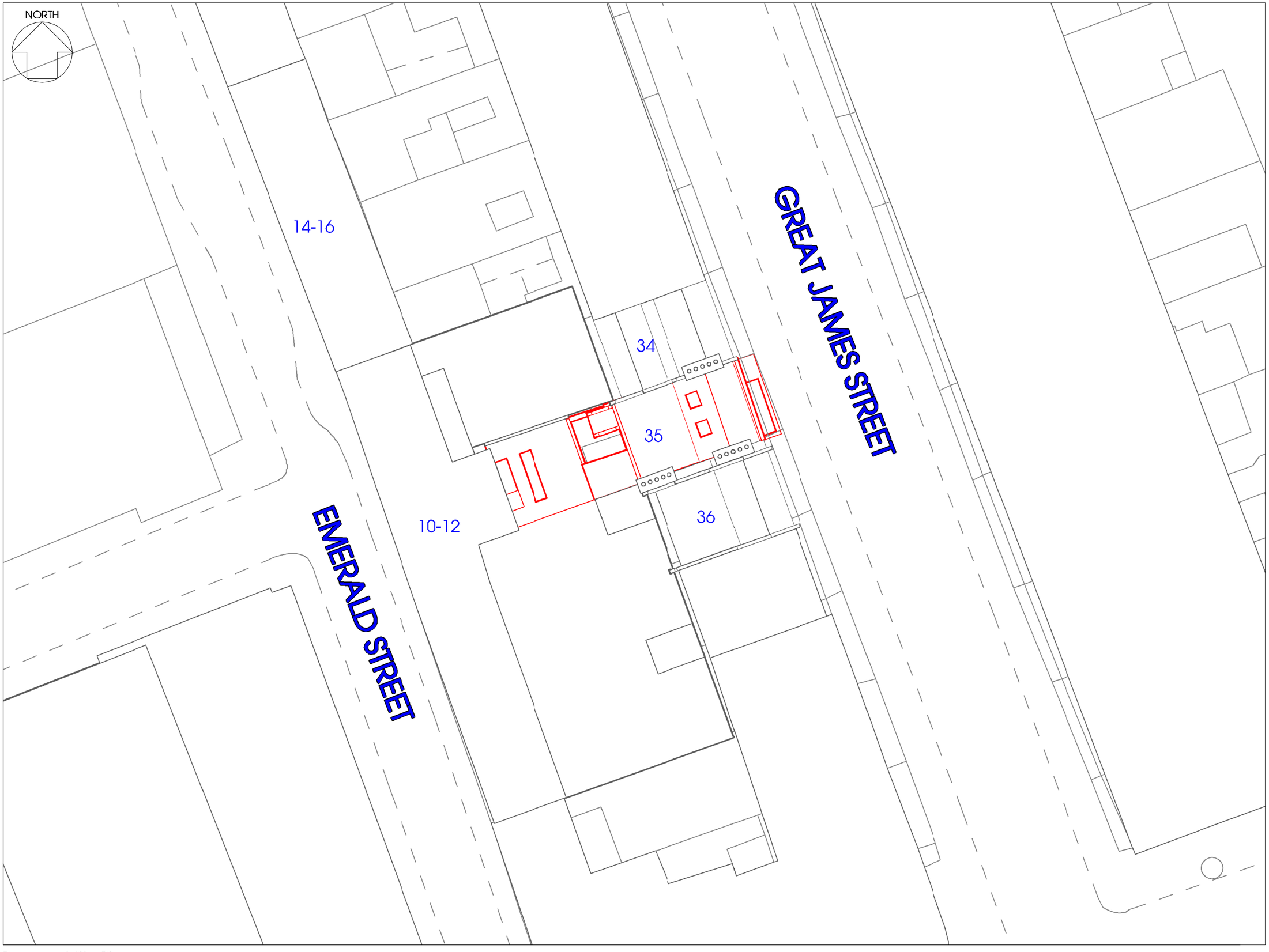
- For a garden or amenity area to appear adequately sunlit throughout the year, at least 50% of the area should receive at least two hours of sunlight on 21 March;

- In addition, if, as result of new development, an existing garden or amenity area does not reach the area target above and the area which can receive two hours of direct sunlight on 21 March is reduced by more than 20% this loss is likely to be noticeable.

Appendix G of the BRE guidelines describes a methodology for calculating sunlight availability for amenity spaces.

Appendix B

Context Drawings



Proposed Site Plan

SOURCES OF INFORMATION:

MAREK WOJCIECHOWSKI ARCHITECTS

P_01 Proposed Ground Floor Plan.dwg
P_02 Proposed Lower Ground Floor Plan.dwg
P_03 Proposed First Floor Plan.dwg
P_04 Proposed Second Floor Plan.dwg
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P_09 Proposed Rear Elevation.dwg
P_10 Proposed Section AA.dwg
P_11 Proposed Section BB.dwg
As Existing.skp

Received 16 November 2015

Rev.	Date	Amendments	Initial

MALCOLM HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES.
ALL DIMENSIONS ARE IN MILLIMETERS ONLY

TITLE
Proposed Site Plan

CLIENT
Marek Wojclechowski Architects

PROJECT
35 Great James Street,
London,
WC1N 3HB

DRAWN BY	CHECKED
SK	IM
SCALE	DATE
1:250@A3	October 2015

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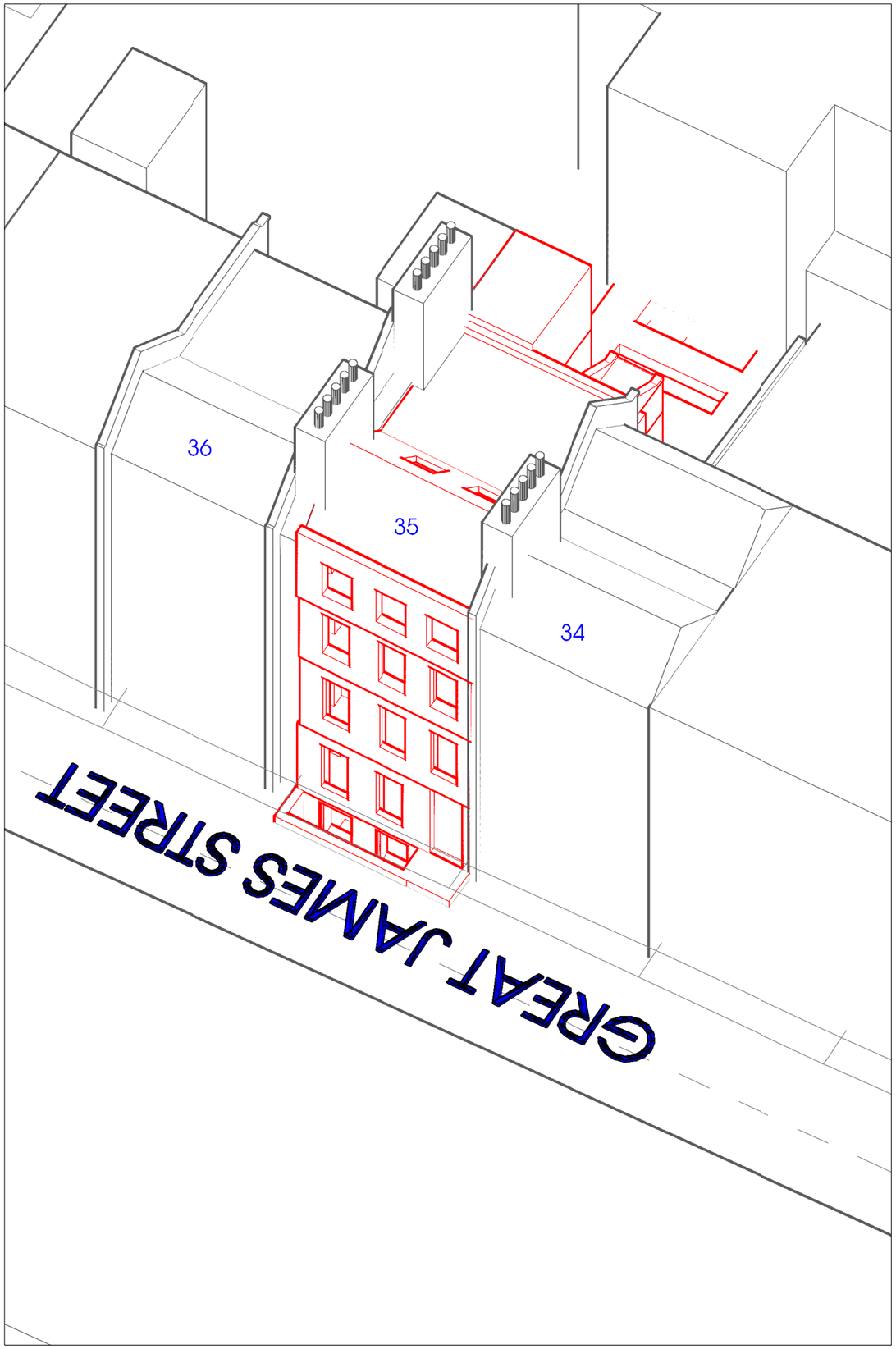
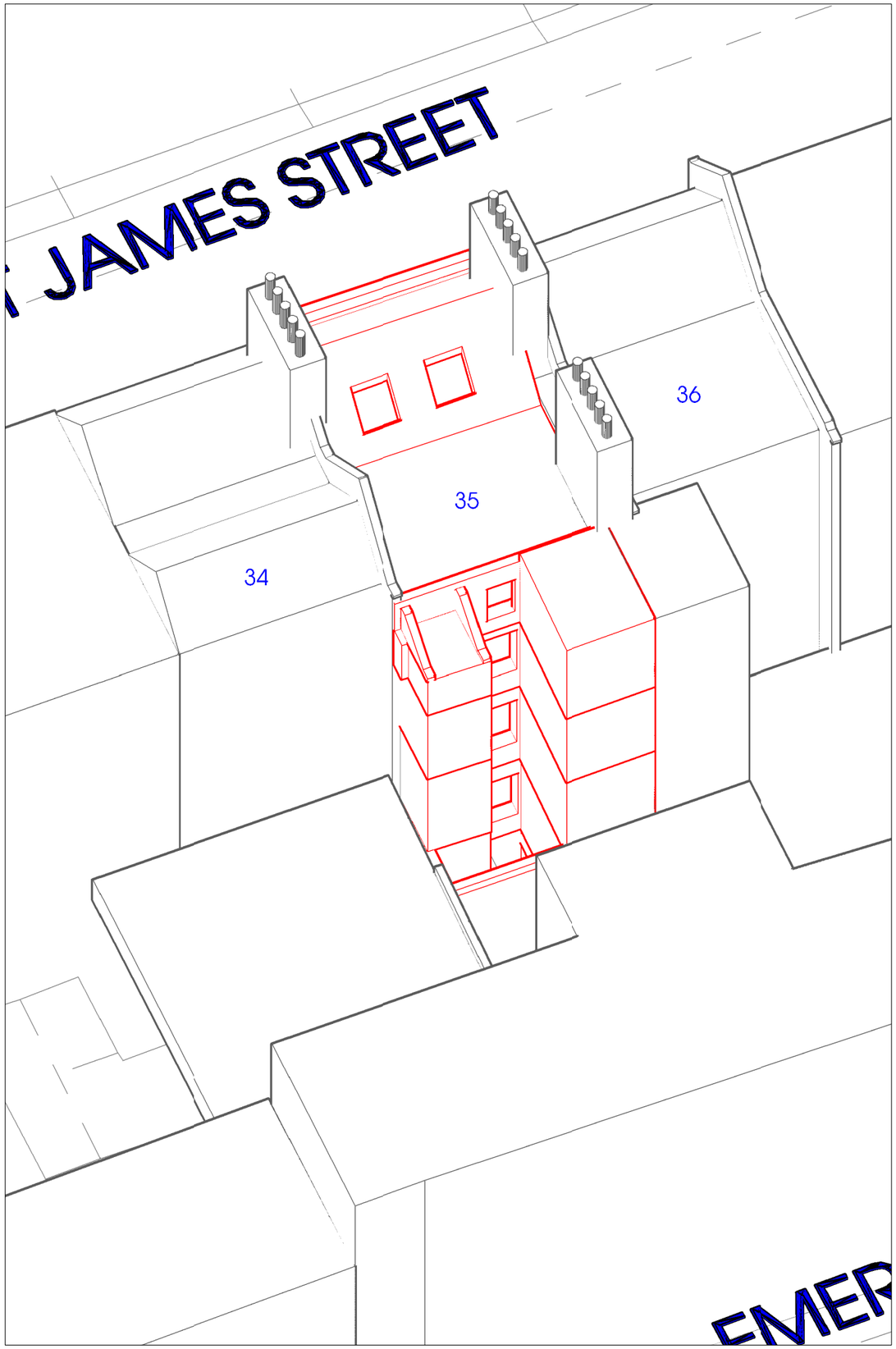
DRAWING NO.	RELEASE NO.
45627_CTXT_01	1



3D Context View - View from North East (Proposed)



3D Context View - View from North West (Proposed)

SOURCES OF INFORMATION:

MAREK WOJCIECHOWSKI ARCHITECTS

P_01 Proposed Ground Floor Plan.dwg
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As Existing.skp

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Rev.	Date	Amendments	Initial

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TITLE
3D Views
Proposed Site

CLIENT
Marek Wojciechowski Architects

PROJECT
35 Great James Street,
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DRAWN BY	CHECKED
SK	IM
SCALE	DATE
NTS@A3	October 2015

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DRAWING NO.	RELEASE NO.
45627_CTXT_02	1

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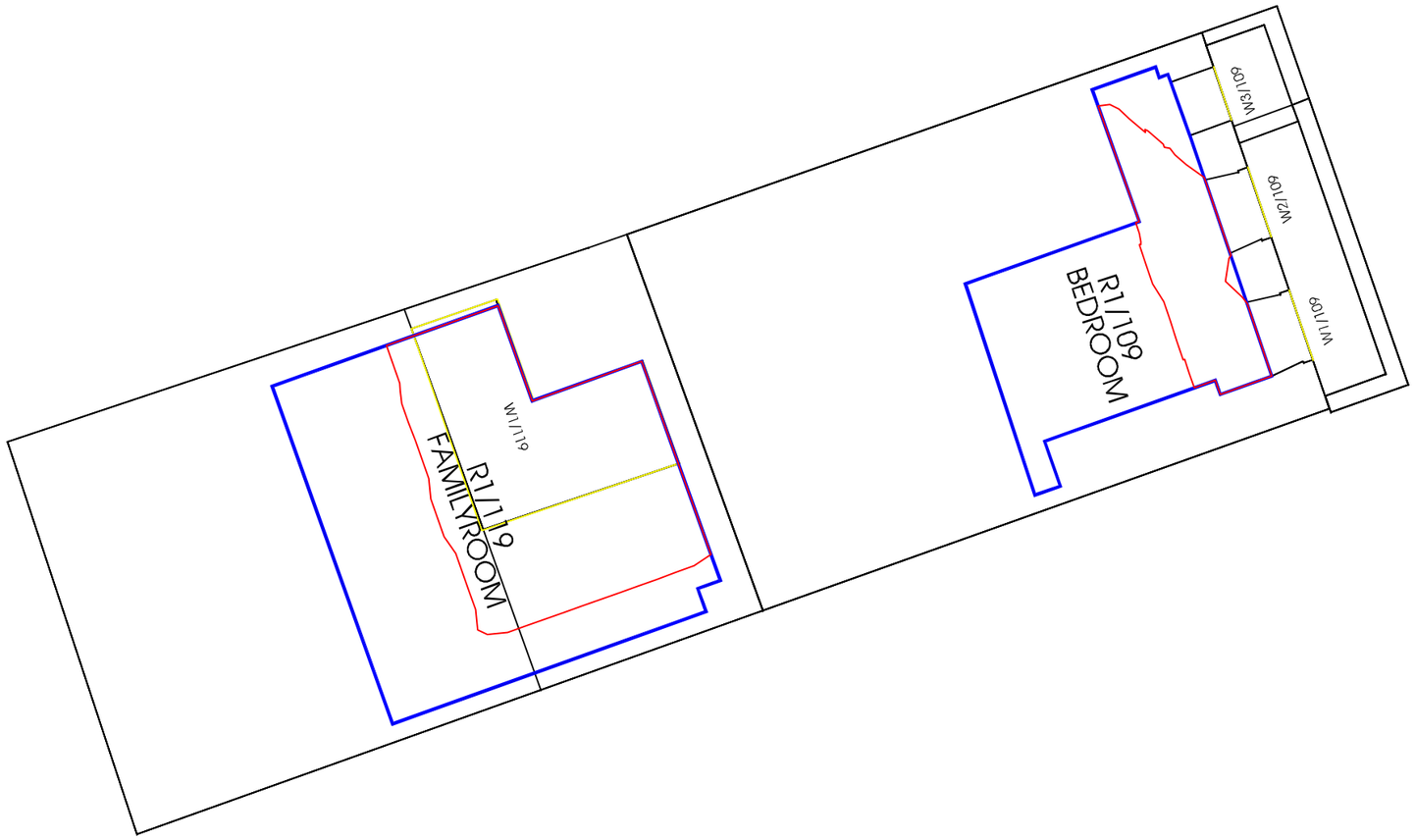
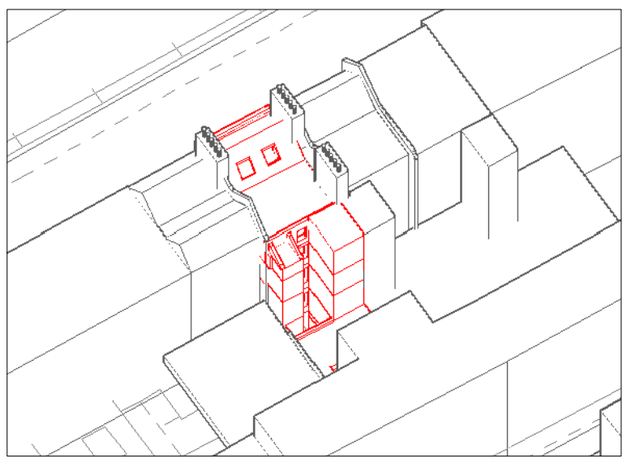
Appendix C

Window/Room Reference Drawings

NORTH

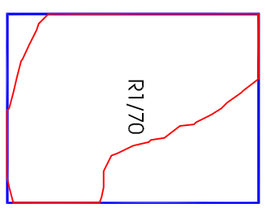


35 Great James Street - Lower Ground Floor



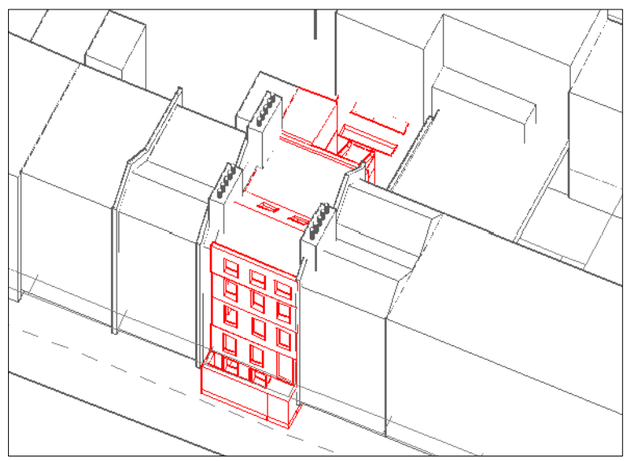
3D Context View - North West

KEY



Proposed contour

Subject room



3D Context View - North East

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MAREK WOJCIECHOWSKI ARCHITECTS

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TITLE

Daylight Distribution Contours/Referencing Plans 35 Great James Street

CLIENT

Marek Wojciechowski Architects

PROJECT

35 Great James Street, London, WC1N 3HB

DRAWN BY	CHECKED
SK	IM

SCALE	DATE
1:100@A3	October 2015

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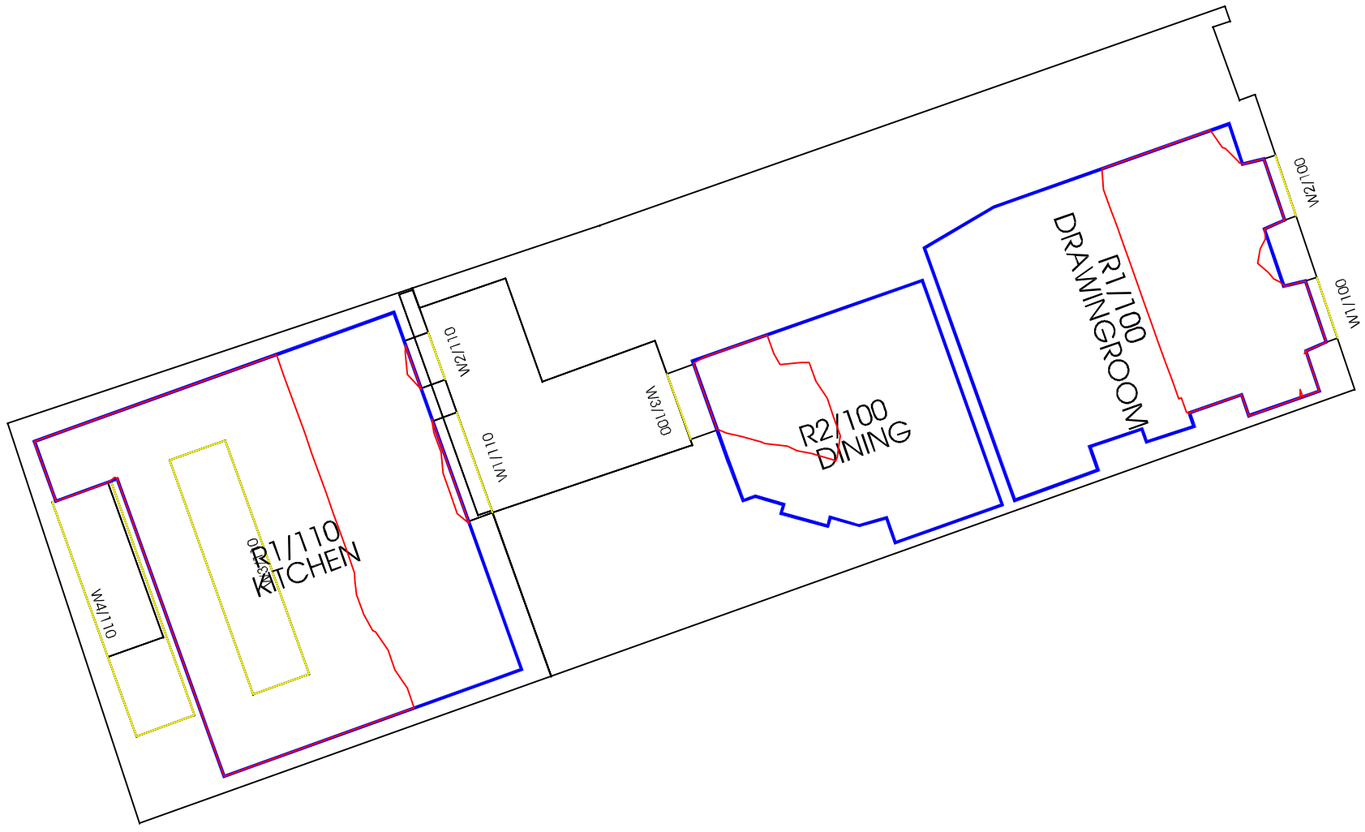
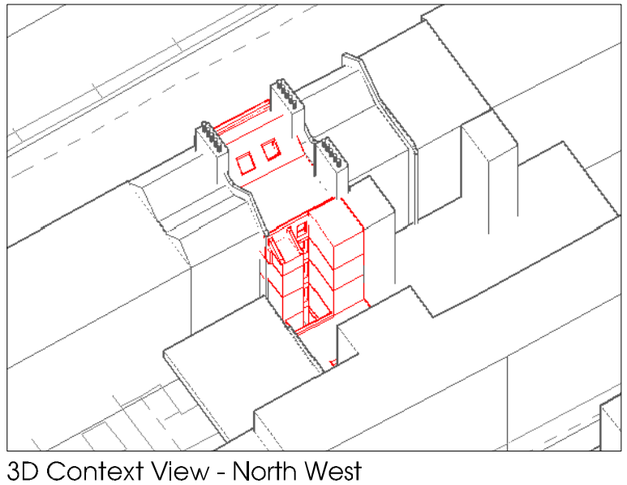
45627_DD_01	1

NORTH

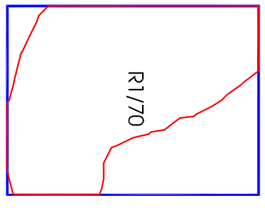


35 Great James Street - Ground Floor



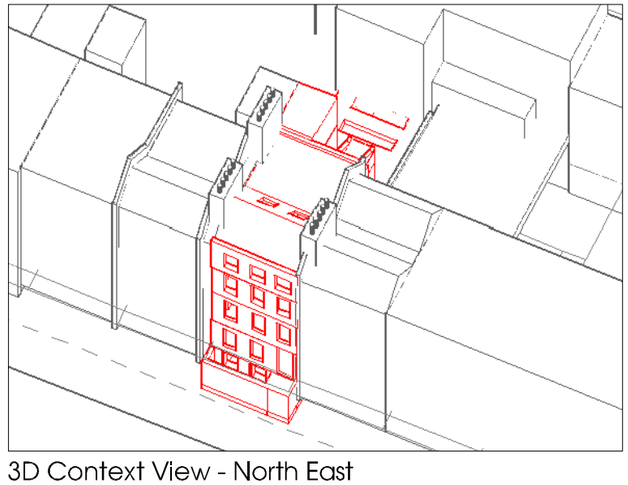
3D Context View - North West

KEY



Proposed contour

Subject room



3D Context View - North East

SOURCES OF INFORMATION:

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P_10 Proposed Section AA.dwg
P_11 Proposed Section BB.dwg
As Existing.skp

Received 16 November 2015

Rev.	Date	Amendments	Initial

MALCOLM HOLLIS SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES.
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TITLE

Daylight Distribution Contours/Referencing Plans 35 Great James Street

CLIENT

Marek Wojciechowski Architects

PROJECT

35 Great James Street, London, WC1N 3HB

DRAWN BY	CHECKED
SK	IM

SCALE	DATE
1:100@A3	October 2015

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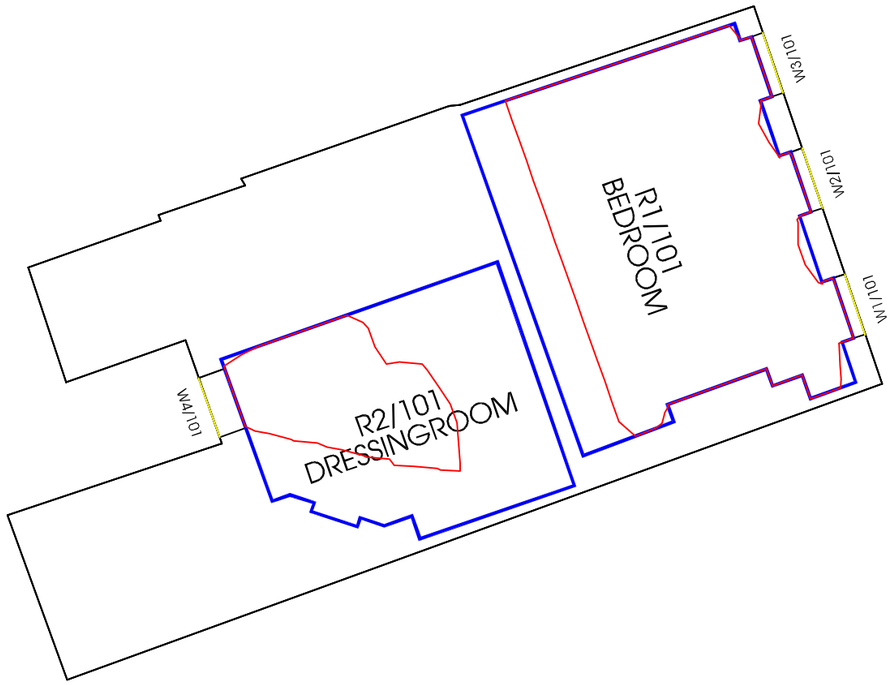
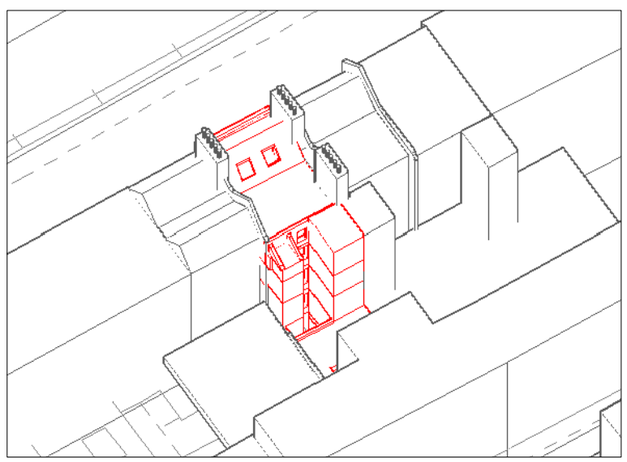
NORTH



35 Great James Street - First Floor



3D Context View - North West

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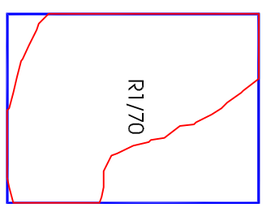
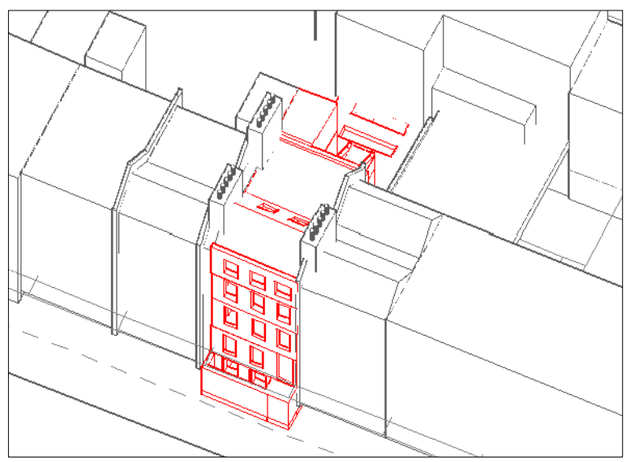


Proposed contour

Subject room



3D Context View - North East

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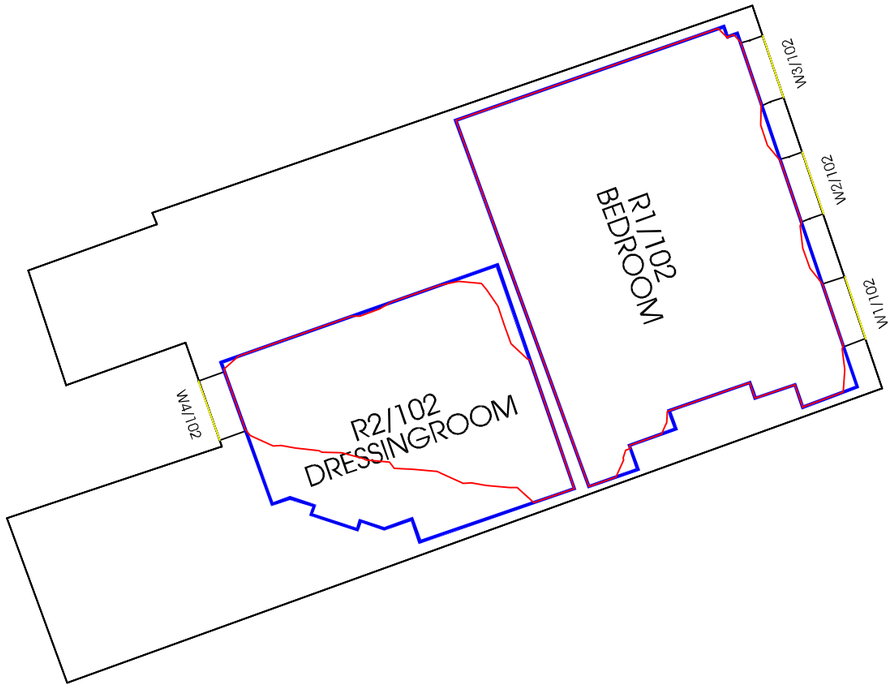
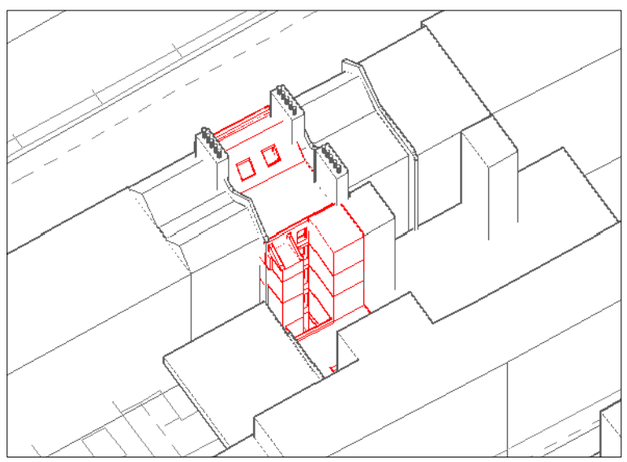
NORTH



35 Great James Street - Second Floor



3D Context View - North West

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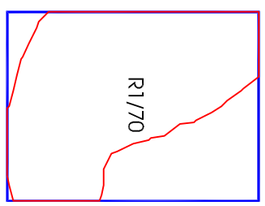
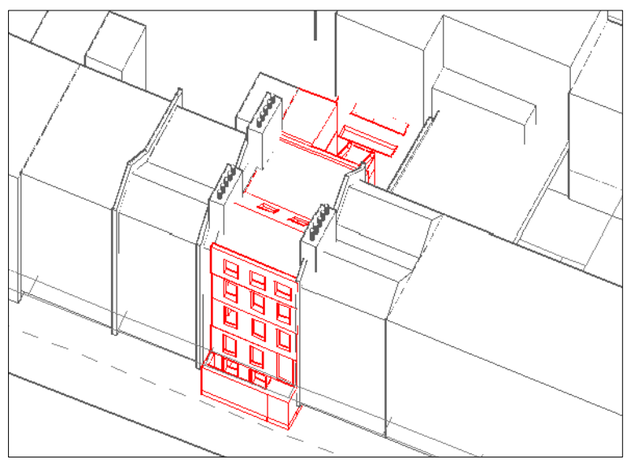


Proposed contour

Subject room



3D Context View - North East

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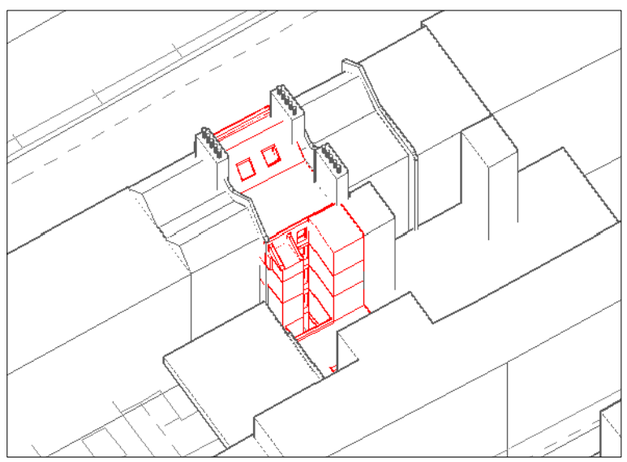
NORTH

35 Great James Street - Third Floor



3D Context View - North West

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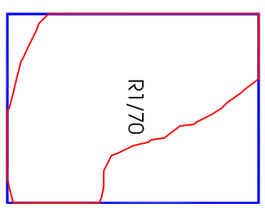
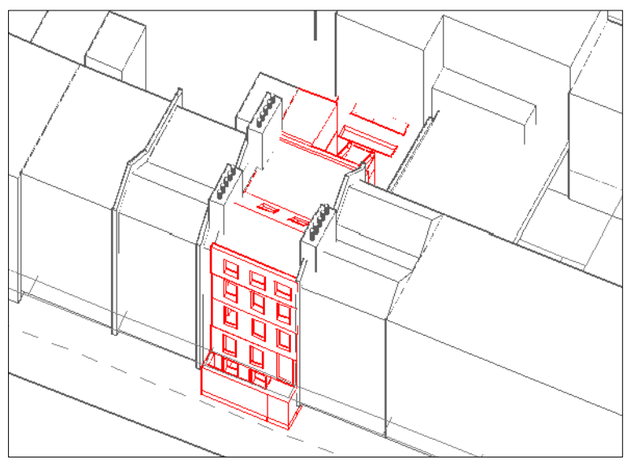


Proposed contour

Subject room



3D Context View - North East

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Appendix D

Daylight Study

Room/Floor	Room Use	Room Area sq ft	No-Sky Line sq ft	% Of Room Area
35 GREAT JAMES STREET				
Lower Ground Floor				
R1/109	BEDROOM	137.0	47.9	35.0
R1/119	FAMILYROOM	270.8	147.6	54.5
Ground Floor				
R1/100	DRAWINGROOM	206.2	88.6	43.0
R2/100	DINING	115.7	25.1	21.7
R1/110	KITCHEN	280.2	175.9	62.8
First Floor				
R1/101	BEDROOM	233.0	192.7	82.7
R2/101	DRESSINGROOM	141.1	51.9	36.8
Second Floor				
R1/102	BEDROOM	240.4	237.2	98.7
R2/102	DRESSINGROOM	141.1	105.0	74.4
Third Floor				
R1/103	BEDROOM	250.8	250.8	100.0
R2/103	DRESSINGROOM	144.8	136.5	94.3

Room	Room Use	Window	VSC(%)	ADF(%)	TOTAL ADF(%)	PASS/ FAIL
35 GREAT JAMES STREET						
Lower Ground Floor						
R1/109	BEDROOM	W1/109	11.16	0.83		
R1/109	BEDROOM	W2/109	10.71	0.82		
R1/109	BEDROOM	W3/109	0.22	0.02	1.66	PASS
R1/119	FAMILYROOM	W1/119	8.44	1.97	1.97	PASS
Ground Floor						
R1/100	DRAWINGROOM	W1/100	17.93	0.76		
R1/100	DRAWINGROOM	W2/100	18.03	0.76	1.52	PASS
R2/100	DINING	W3/100	2.89	0.47	0.47	FAIL
R1/110	KITCHEN	W1/110	0.66	0.10		
R1/110	KITCHEN	W2/110	0.45	0.04		
R1/110	KITCHEN	W3/110	46.27	1.95		
R1/110	KITCHEN	W4/110	38.29	1.85	3.94	PASS
First Floor						
R1/101	BEDROOM	W1/101	23.32	0.84		
R1/101	BEDROOM	W2/101	23.44	0.84		
R1/101	BEDROOM	W3/101	23.38	0.84	2.52	PASS
R2/101	DRESSINGROOM	W4/101	4.98	0.51	0.51	FAIL
Second Floor						
R1/102	BEDROOM	W1/102	29.43	0.94		
R1/102	BEDROOM	W2/102	29.58	0.94		
R1/102	BEDROOM	W3/102	29.55	0.94	2.81	PASS
R2/102	DRESSINGROOM	W4/102	8.41	0.63	0.63	FAIL
Third Floor						
R1/103	BEDROOM	W1/103	34.83	0.91		
R1/103	BEDROOM	W2/103	34.97	0.91		
R1/103	BEDROOM	W3/103	34.96	0.95		
R1/103	BEDROOM	W4/103	64.81	1.13		
R1/103	BEDROOM	W5/103	63.53	1.11	5.01	PASS
R2/103	DRESSINGROOM	W6/103	17.54	0.60	0.60	FAIL

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Appendix E

Sunlight Study

Room	Window	Room Use	Window Winter APSH	Window Annual APSH	Window Pass/ Fail	Room Winter APSH	Room Annual APSH	Room Pass/ Fail
35 GREAT JAMES STREET								
Lower Ground Floor								
R1/119	**W1/119**	FAMILYROOM	0	0	FAIL	0	0	FAIL
Ground Floor								
R1/110	**W1/110**	KITCHEN	0	0	FAIL			
R1/110	**W2/110**	KITCHEN	0	0	FAIL			
R1/110	**W3/110**	KITCHEN	6	23	FAIL			
R1/110	**W4/110**	KITCHEN	4	18	FAIL	6	26	PASS

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Appendix F

Overshadowing Study

SOURCES OF INFORMATION:

MAREK WOJCIECHOWSKI ARCHITECTS

P_01 Proposed Ground Floor Plan.dwg
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P_04 Proposed Second Floor Plan.dwg
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TITLE

Proposed 2hr Sun Contours March 21st

CLIENT

Marek Wojclechowski Architects

PROJECT

35 Great James Street, London, WC1N 3HB

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SCALE	DATE
1:200@A3	October 2015

Amenity Areas - March 21 (Proposed)

Amenity area boundary

Area receiving over 2 hours of Sun on 21 March (Proposed)

Area receiving under 2 hours of Sun on 21 March (Proposed)

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PROPOSED					
Room/ Area	Open Space Area sq m	Area of Shade sq m	Area of Sun	Proportion in Shade	Proportion in Sun
START TIME: March 21 - 6:00am, END TIME: March 21 - 18:00pm, 10 min samples					
R1/1000	25.91	8.97	16.94	34.62%	65.38%
R1/1001	36.47	5.66	30.81	15.52%	84.48%